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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/866,145

05/25/2001

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4449

7590  
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07/27/2009

EXAMINER

BARRY, CHESTER T

ART UNIT

PAPER NUMBER

1797

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/866,145	<b>Applicant(s)</b> HAASE, RICHARD ALAN	
	<b>Examiner</b> CHESTER T. BARRY	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 – 13, 15-20, 39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 – 13, 15-20, 39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Claims 1 – 13, 15-20, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stover in view of Haase '435.

USP 6660164 to Stover describes adding ferric chloride 146, 22, 28 (col 8 line 36) to an autothermal aerobic thermophilic digestion process 10. Thereafter, the thermophilic sludge 138 is dewatered (col 10 line 50). Stover does not describe adding cationic or anionic polyacrylamide to the sludge.

USP 5846435 to Haase describes dewatering a sludge from a thermophilic aerobic digestion process. The process involves *inter alia* adding a cationic or anionic polyacrylamide to the sludge.

It would have been obvious to have dewatered Stover's aerobic thermophilic sludge using Haase's process for dewatering aerobic thermophilic sludge because Haase recognized the difficulty in dewatering thermophilic sludge and solved it using a combination of conditioners.

With respect to the numeric ranges or property values recited in the claims but not specifically addressed in the rejection above, the claimed limitations would have been obvious in view of the recognition in the art that the property, parameter, or limitation is a known result-effective parameter, the optimization of which would have been obvious with no more than routine experimentation.

Claims 1 – 13, 15-20, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Nielsen or Haase '435 in view of Field.

US 5954964 to Nielsen describes dewatering a thermophilic sludge with a low MW polymer and a high MW polymer, but does not describe using an inorganic coagulant like aluminum sulfate or ferric chloride in place of, or in addition to, the low MW polymer.

USP 5846435 to Haase describes dewatering a sludge from a thermophilic aerobic digestion process. The process involves *inter alia* adding a cationic or anionic polyacrylamide to the sludge.

USP 4043910 to Field facilitates the removal of phosphates from wastewater using both an inorganic coagulant, e.g., ferric chloride, and a cationic polyelectrolyte, e.g., polyacrylamide.

It would have been obvious to have used ferric chloride in combination with either Haase's or Nielsen's low molecular weight polyacrylamide in order to improve removal of phosphorus from Haase's sludge, as suggested by Field.

With respect to the numeric ranges or property values recited in the claims but not specifically addressed in the rejection above, the claimed limitations would have been obvious in view of the recognition in the art that the property, parameter, or limitation is a known result-effective parameter, the optimization of which would have been obvious with no more than routine experimentation.

#### Response to Arguments

Applicant argues that the invention as a whole would not have been obvious to a person having ordinary skill in the art because – in applicant’s view – certain other references of record, e.g., Dentel, “teach away” from the claimed invention.

This argument has been carefully considered in addition to the evidence of obviousness found in the applied references, i.e., Haase 435, Stover, Nielsen, and Field. When all of the evidence of record – including the alleged teaching away of Dentel and others – was carefully considered as if all such evidence were posted on the walls of the metaphorical workshop of the hypothetical person having ordinary skill in the art at the time the invention was made, the conclusion of the examiner is that the claimed subject matter taken as a whole would have been obvious to such person. The examiner refers the applicant to *In re Gurley*, 27 F.3d 551, 31 USPQ2d 1130 (Fed. Cir. 1994). In that case, the applicant argued that a reference that ‘teaches away’ can not serve to create a prima facie case of obviousness. The court agreed that this is a useful general rule, but stressed that such a rule can not be adopted in the abstract, for it may not be applicable in all factual circumstances. Further, the court noted, although a reference that teaches away is a significant factor to be considered in determining unobviousness, the nature of the teaching is highly relevant, and must be weighed in substance. After weighing the evidence of nonobviousness presented by Dentel and other references cited by applicant against those of Stover, Haase 435, Nielsen, and Field, the examiner concludes that applicant’s invention is not patentable under Sec 103.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

/Chester T. Barry/  
Primary Examiner, Art Unit 1797  
571-272-1152